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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/480,735	01/10/2000	SHINICHI KURANARI	FUJR-16.835	4671

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KATTEN MUCHIN ZAVIS ROSENMAN
575 MADISON AVENUE
NEW YORK, NY 10022-2585

EXAMINER

AVELLINO, JOSEPH E

ART UNIT PAPER NUMBER

2143

DATE MAILED: 04/08/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/480,735

Applicant(s)

KURANARI ET AL.

Examiner

Joseph E. Avellino

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-8 are pending in this examination.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 5, 7, and 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellington, Jr. et al. (USPN 6,175,569) (cited by Office in previous Office Action) (hereinafter Ellington) in view of Law et al. (USPN 6,330,602) (hereinafter Law)

Art Unit: 2143

4. Referring to claims 1 and 8, Ellington discloses a network interconnection apparatus for interconnecting a LAN and an ATM network to perform communications, comprising:

routing information managing means for managing routing information of the ATM network (e.g. abstract; Figure 6);

QoS setting means for setting QoS (i.e. traffic classes such as CBR, VBR, etc.) which the ATM network ought to guarantee, based on the type of traffic being transmitted through the ATM network (for example, priority token '100' designates MPEG-1 type of traffic whereas token '011' designates MPEG-2 type of traffic) (Figure 5; col. 6, lines 24-46);

QoS guarantee determining means for determining based on the routing information (i.e. sufficient bandwidth to support connection through LAN) whether or not the set QoS can be guaranteed (Figure 7, reference character 94);

QoS adjusting means for adjusting the QoS so that the QoS can be guaranteed, if it is judged that the QoS cannot be guaranteed (Figure 7, reference characters 98 and 100, and pertinent portions of the disclosure); and

call connection control means for performing call connection according to the QoS which can be guaranteed (Figure 6, reference character 90);

Ellington does not disclose statistical information managing means for managing statistical information between a LAN terminal and another LAN terminal and QoS setting means for setting QoS which the ATM network ought to guarantee, based on

Art Unit: 2143

measured statistics managed by the statistical information managing means. Law discloses:

statistical information managing means (i.e. the depot 54) for managing statistical information between a LAN terminal and another LAN terminal (choosing a server based on load balancing criteria for TCP sessions) (e.g. abstract; col. 5, lines 21-14); and

QoS setting means for setting QoS (i.e. mapping QoS parameters from IP to ATM network when necessary) which the ATM network ought to guarantee, based on measured statistics (i.e. load balancing criteria) by the statistical information managing means (depot) (col. 5, lines 10-20).

It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Ellington with Law to provide a good granular scalability of servers, and improved server throughput with good response time as supported by Law (abstract).

5. Referring to claim 5, Ellington in view of Law discloses the network management interconnection apparatus substantively as claimed in claim 1. Ellington further discloses QoS information notifying means for making notification of QoS information to outside (e.g. abstract). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Ellington with Law to provide a good granular scalability of servers, and improved server throughput with good response time as supported by Law (abstract).

6. Referring to claim 7, Ellington in view of Law discloses the network interconnection apparatus as stated in the claims above. Ellington further discloses the network interconnection apparatus is connected to a maintenance terminal unit (i.e. a LAN computer allowing a user application to re-map the ATM QoS assignments) (col. 8, lines 9-41). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Ellington with Law to provide a good granular scalability of servers, and improved server throughput with good response time as supported by Law (abstract).

7. Claims 2-4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellington in view of Law as used in claims 1, 5, and 7 above, and further in view of Ellesson et al. (USPN 6,459,682) (cited by Office in earlier Action) (hereinafter Ellesson).

8. Referring to claim 2, Ellington in view of Law disclose the invention substantively as claimed in claim 1. Ellington in view of Law do not specifically state that the statistical information managing means manages, as the statistical information, a traffic volume which is a sum of frame sizes or a total number of frames within a fixed time interval and which reflects traffic status of the LAN, and an average traffic volume thereof. Ellesson discloses another network interconnection apparatus wherein the statistical information managing means manages, as the statistical information, a traffic

Art Unit: 2143

volume which is a sum of frame sizes or a total number of frames within a fixed time interval and which reflects traffic status of the LAN, and an average traffic volume thereof (col. 5, lines 63-65; col. 11, lines 11-29). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Ellington and Law with Ellesson to provide network traffic control tools enabling optimum allocation of network resources and minimizing the need to provide excess capacity in order to implement a variety of SLA agreements as supported by Ellesson (col. 2, lines 38-41).

9. Referring to claim 3, Ellington in view of Law disclose the invention substantively as claimed in claim 1. Ellington in view of Law do not specifically state selecting a constant transmission rate as service category if a maximum traffic volume is smaller than an augmented average traffic volume, and selects a variable transmission rate as the service category if the maximum traffic volume is greater than the augmented average traffic volume (col. 5, lines 55-65). Ellesson discloses another network interconnection apparatus wherein selecting a constant transmission rate as service category if a maximum traffic volume is smaller than an augmented average traffic volume, and selects a variable transmission rate as the service category if the maximum traffic volume is greater than the augmented average traffic volume (col. 5, lines 55-65). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Ellington and Law with Ellesson to provide network traffic control tools enabling optimum allocation of network resources and minimizing the

Art Unit: 2143

need to provide excess capacity in order to implement a variety of SLA agreements as supported by Ellesson (col. 2, lines 38-41).

10. Referring to claim 4, Ellington in view of Law disclose the invention substantively as claimed in claim 1. Ellington in view of Law do not specifically state adjusting a maximum burst size of QoS whose service category is variable transmission rate (paced) and whose maximum cell rate has been judged to be incapable of being guaranteed so that the QoS can be guaranteed. Ellesson discloses adjusting a maximum burst size of QoS whose service category is variable transmission rate (paced) and whose maximum cell rate has been judged to be incapable of being guaranteed so that the QoS can be guaranteed (col. 9, line 46 to col. 10, line 30). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Ellington and Law with Ellesson to provide network traffic control tools enabling optimum allocation of network resources and minimizing the need to provide excess capacity in order to implement a variety of SLA agreements as supported by Ellesson (col. 2, lines 38-41).

11. Referring to claim 6, Ellington in view of Law disclose the invention substantively as claimed in claim 1. Ellington in view of Law do not specifically state route-selecting means for selecting a route according to preferential QoS if there exists a plurality of route options when the call connection is to be performed. Ellesson discloses route-selecting means for selecting a route according to preferential QoS if there exists a

Art Unit: 2143

plurality of route options when the call connection is to be performed (col. 7, lines 1-15).

It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Ellington and Law with Ellesson to provide network traffic control tools enabling optimum allocation of network resources and minimizing the need to provide excess capacity in order to implement a variety of SLA agreements as supported by Ellesson (col. 2, lines 38-41).

Response to Amendment

12. The Office has considered the Amendment to claim 8 to correct deficiencies under 35 USC 112, second paragraph. The rejection is withdrawn.

13. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Bakre et al. (USPN 6,671,276) discloses switch based network architecture for IP multicast and Integrated Services.

Art Unit: 2143

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (703) 305-7855. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (703) 308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

JEA
April 6, 2004



DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100